

In the Claims:

Please cancel claims 8, 11, 19, 22, 30 and 33 without prejudice or dedication.

Please amend the claims as indicated below.

1. (currently amended) A method for monitoring a network comprising:

receiving at least one data packet from the network;

reading an entry of a memory device, the entry of the memory device containing both a first statistical value and a second statistical value, wherein the entry is a single memory location of the memory device, wherein the first statistical value includes a packet count, and wherein the second statistical value includes a byte count;

determining a third statistical value based on at least one of a content of the at least one data packet, the first statistical value, and the second statistical value, wherein the third statistical value includes a new value of the packet count and a new value of the byte count, wherein the determining the third statistical value includes undoing a previous statistic add by adding a negative value to the byte count and decrementing the packet count in response to the adding of the negative value to the byte count;

storing the entire set of bits of the determined third statistical value into the entry of the memory device; ~~and~~

wherein said reading, determining and storing are performed without interruption; and

using the packet count and the byte count to monitor the network.

2. (original) The method of claim 1,

wherein the at least one data packet contains a set of data bits,

wherein the first statistical value includes a count of the received at least one data packet, and

wherein the second statistical value includes a count of a subset of data bits of the received at least one data packet.

3. (original) The method of claim 1,

wherein storing the determined third statistical value in the entry of the memory device overwrites one of the first statistical value and the second statistical value.

4. (original) The method of claim 1, wherein the at least one data packet comprises at least one of SONET, ATM, Ethernet, HDLC, PPP, IP, TCP, and UDP data packet.

5. (original) The method of claim 1, wherein the third statistical value comprises updates to at least one of the first statistical value and the second statistical value.

6. (original) The method of claim 5, wherein the third statistical value updates at least one of the first statistical value and the second statistical value by at least one of incrementing and decrementing the first statistical value and the second statistical value, respectively, by a value.

7. (original) The method of claim 5, wherein the third statistical value updates at least one of the first statistical value and the second statistical value by adding a value to the first statistical value and the second statistical value, respectively.

8. (cancelled)

9. (original) The method of claim 1, wherein the entry of the memory device is associated with the received data packet.

10. (original) The method of claim 2, wherein the subset of data bits of the received data packet comprises 8 data bits of the received data packet.

11. (cancelled)

12. (currently amended) An apparatus for monitoring a network comprising:

a receiver configured to receive at least one data packet from the network;

an entry of a memory device configured to store both a first statistical value and a second statistical value, wherein the entry is a single memory location of the memory device, wherein the first statistical value includes a packet count, and wherein the second statistical value includes a byte count;

a processor coupled to the receiver and the memory device, the processor being configured to read the first statistical value and the second statistical value from the entry, determine a third statistical value based on at least one of a content of the at least one data

packet, the first statistical value, and the second statistical value, wherein the third statistical value includes a new value of the packet count and a new value of the byte count, and to store the entire set of bits in the third statistical value into the entry of the memory device, wherein the determining of the third statistical value includes undoing a previous statistic add by adding a negative value to the byte count and decrementing the packet count in response to the adding of the negative value to the byte count, wherein the reading of the first and the second statistical values from the entry, the determining of the third statistical value, and the storing of the third statistical value in the entry are performed without interruption, and wherein the processor is further configured to use the packet count and the byte count to monitor the network.

13. (original) The apparatus of claim 12,

wherein the at least one data packet contains a set of data bits, wherein the first statistical value includes a count of the received at least one data packet, and

wherein the second statistical value includes a count of a subset of data bits of the received at least one data packet.

14. (original) The apparatus of claim 12, wherein storing the third statistical value in the entry of the memory device overwrites one of the first statistical value and the second statistical value.

15. (original) The apparatus of claim 12, wherein the at least one data packet comprises at least one of SONET, ATM, Ethernet, HDLC, PPP, IP, TCP, and UDP data packet.

16. (original) The apparatus of claim 12, wherein the third statistical value comprises updates to at least one of the first statistical value and the second statistical value.

17. (original) The apparatus of claim 16, wherein the third statistical value updates at least one of the first statistical value and the second statistical value by at least one of incrementing and decrementing the first statistical value and the second statistical value, respectively, by a value.

18. (original) The apparatus of claim 16, wherein the third statistical value updates at least one of the first statistical value and the second statistical value by adding a value to the first statistical value and the second statistical value, respectively.

19. (cancelled)

20. (original) The apparatus of claim 12, wherein the entry of the memory device is associated with the data packet.

21. (original) The apparatus of claim 13, wherein the subset of data bits of the received data packet comprises 8 data bits of the received data packet.

22. (cancelled)

23. (currently amended) A computer-readable medium have stored thereon program code for monitoring a network, the program code comprising:

program code for receiving at least one data packet from said network;

program code for reading an entry of a memory device, the entry of the memory device containing both a first statistical value and a second statistical value, wherein the entry is a single memory location of the memory device, wherein the first statistical value includes a packet count, and wherein the second statistical value includes a byte count;

program code for determining a third statistical value based on at least one of a content of the at least one data packet, the first statistical value, and the second statistical value, wherein the third statistical value includes a new value of the packet count and a new value of the byte count, wherein the determining the third statistical value includes undoing a previous statistical add by adding a negative value to the byte count and decrementing the packet count in response to the adding of the negative value to the byte count;

program code for storing the entire set of bits in the determined third statistical value into the entry of the memory device; ~~and~~

wherein the reading, determining and storing are performed without interruption; and

using said packet count and said byte count to monitor said network.

24. (original) The computer-readable medium of claim 23, wherein the at least one data packet contains a set of data bits, wherein the first statistical value includes a count of the received at least one data packet, and wherein the second statistical value includes a count of a subset of data bits of the received at least one data packet.

25. (previously presented) The computer-readable medium of claim 23, wherein the program code for storing the determined third statistical value in the entry of the-memory device overwrites one of the first statistical value and the second statistical value.

26. (original) The computer-readable medium of claim 23, wherein the at least one data packet comprises at least one of SONET, ATM, Ethernet, HDLC, PPP, IP, TCP, and UDP data packet.

27. (original) The computer-readable medium of claim 23, wherein the third statistical value comprises updates to at least one of the first statistical value and the second statistical value.

28. (original) The computer-readable medium of claim 27, wherein the third statistical value updates at least one of the first statistical value and the second statistical value by at least one of incrementing and decrementing the first statistical value and the second statistical value, respectively, by a value.

29. (original) The computer-readable medium of claim 27, wherein the third statistical value updates at least one of the first statistical value and the second statistical value by adding a value to the first statistical value and the second statistical value, respectively.

30. (cancelled)

31. (original) The computer-readable medium of claim 23, wherein the entry of the memory device is associated with the received data packet.

32. (original) The computer-readable medium of claim 24, wherein the subset of data bits of the received data packet comprises 8 data bits of the received data packet.

33. (cancelled)

34. (previously presented) The method of claim 1, further comprising program code for reading said single memory location following said storing, and, in the event that said third statistical value comprises a negative value, writing a predetermined value to said single memory location.

35. (previously presented) The method of claim 34, wherein said predetermined value comprises all zeros.

36. (previously presented) The apparatus of claim 12, wherein said processor is further configured to read said single memory location following storing of said third statistical value, and, in the event that said third statistical value comprises a negative value, write a predetermined value to said single memory location.

37. (previously presented) The apparatus of claim 36, wherein said predetermined value comprises all zeros.



38. (previously presented) The computer-readable medium of claim 23, wherein said program code further comprises:

program code for reading said single memory location following said storing, and, in the event that said third statistical value comprises a negative value, writing a predetermined value to said single memory location.

39. (previously presented) The computer-readable medium of claim 38, wherein said predetermined value comprises all zeros.